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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/291,748	04/14/1999	FREDERIC GOURGUE	Q053991	2494

7590

12/30/2003

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WASHINGTON, DC 200373213

EXAMINER
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SWICKHAMER, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 12/30/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/291,748

Applicant(s)

GOURGUE ET AL.

Examiner

Christopher M Swickhamer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☒ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is in response to the Amendment filed 10/21/03. Amended claims 1-6 have been entered. Claims 7-10 have been added. Claims 1-10 are pending. Claims 2 and 4 were objected to in the previous Office Action. The objection has been rescinded per further consideration of the claim and the Popovic' (USP 6,393,047) reference. Accordingly, no claims are in condition for allowance.

### ***Drawings***

2. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because the *More Detailed Description* (pg. 8-12) is written using legal phraseology. The disclosure describes the invention using terminology consistent with a "means plus function" claim. Pages 8-12 must be rewritten omitting this terminology.

- A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If

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the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and (c)

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Popovic' (USP 6,393,047).

Referring to claim 1, Popovic' discloses a transmission device enabling variable (different) spreading factors while preserving a common scrambling code (common length code for all spreading factors) for transmission in a code division multiple access cellular mobile radio system, the device comprising, channelization code spreading means for spreading blocks of symbols with the different spreading factors (Fig. 3, col. 6, lns. 1-3, 10-40); and scrambling means for applying a spreading (scrambling) code of length  $L$  ( $Q_{MAX}$ ) which is a multiple of said different spreading factors ( $L = SF(k) \cdot 2^k$ , pg. 12, lns. 33-50), to blocks of  $L$  ( $Q_{max}$ ) basic symbols obtained by channelization code spreading by means with any of said variable spreading factors (pg/ 12, lns. 33-50).

Referring to claim 2, Popovic' discloses a transmission device enabling different spreading factors while preserving a common scrambling code for transmission in a code

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division multiple access cellular mobile radio system, the transmission device spreading  $K$  incoming sequences by means of  $K$  respective spreading codes of respective length  $SF(k)$  ( $Q_k$ ,  $k=1, \dots, K$ ) which is a sub-multiple of a maximum length  $L$  ( $Q_{max}$ ), and spreading (scrambling) the channelized (spread) sequences obtained in this way, the transmission device comprising: grouping means for grouping the data symbols of the  $k$ th incoming sequence ( $k=1, \dots, K$ ) into different blocks of  $L/SF(k)$  ( $Q_{max}/Q_k$ ) symbols (as the information enters the multiplier, Fig. 3 '52', the codes vary depending on the spreading factor. They are broken up into groups that are multiples of  $2^k = L/SF(k)$ ) and channelization code spreading means for spreading the different blocks from the  $k$ th incoming sequence ( $k=1, \dots, K$ ) by means of the corresponding channelization (spreading) code of length  $SF(k)$  ( $Q_k$ ) to obtain a channelized sequence (spread sequence) including different channelized (spread) blocks of length  $L$  ( $Q_{max}$ ), spreading (scrambling) means for spreading (scrambling) each of the  $K$  spread sequences obtained in this way generated by the spreading means by applying a spreading (scrambling code) of length  $L$  ( $Q_{max}$ ) which is a multiple of the channelization spreading codes (Fig. 3, col. 6, lns. 10-40, col. 12, lns. 33-50).

Referring to claims 3 and 4, Popovic' teaches of a device for receiving the data transmitted in claims 1 and 2. Claims 3 and 4 are the receiver for the transmission device of claims 1 and 2. Thus the same rejection applies to claims 3 and 4. Claims 3 and 4 are the reverse process of claims 1 and 2, which are disclosed by Popovic' (Fig. 2).

Referring to claim 5, Popovic' discloses a mobile station for a mobile radiocommunication system, comprising a device according to claim 1 (col. 5, lns. 1-30).

Referring to claim 6, Popovic' discloses a base transceiver station for a mobile radiocommunication system, comprising a device according to claim 1 (col. 4, lns. 55-68).

Referring to claim 7, Popovic' discloses a mobile station for a mobile radiocommunication system, comprising a device according to claim 2 (col. 5, lns. 1-30).

Referring to claim 8, Popovic' discloses a base transceiver station for a mobile radiocommunication system, comprising a device according to claim 2 (col. 5, lns. 1-30).

Referring to claim 9, Popovic' discloses a mobile station for a mobile radiocommunication system, comprising a device according to claim 4 (col. 5, lns. 1-30).

Referring to claim 10, Popovic' discloses a base transceiver station for a mobile radiocommunication system, comprising a device according to claim 4 (col. 4, lns. 55-68).

### ***Response to Arguments***

6. Applicant's arguments filed 10/21/03 have been fully considered but they are not persuasive.

Referring to the remarks on page 7, lines 14- pg. 8, lines 11, applicant argues that Popovic's term of a spreading code is not interchangeable with a scrambling code. The Examiner respectfully disagrees. Popovic' teaches of a first code (channelization code based on orthogonal variable spreading factors (OVSF), which is a spreading code col. 6, lns. 1-15) applied to the information signal, followed by a second code (spreading code, Fig. 3, col. 6, lns. 10-40). Popovic' also discloses the multiplicity relationship between the spreading factors of the channelization code and the length of the spreading code (col. 12, lns. 38-50). The specification of the instant application describes the claimed system as applying a first code (spreading code)

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followed by a second code (scrambling code) where the second code is a multiple of the first code. Although they two systems have different names for the codes, they serve similar functions. The codes in the Popovic' reference have the same multiplicity relationship between the first code and the second code as described in the claims. The claim does not set forth any properties that would distinguish the codes of the Popovic' reference from the codes in the claimed invention. The systems also have the same structural relationship. Therefore the Examiner believes that the rejection is proper.

Referring to the remarks on page 8, lines 11-13, applicant argues that Popovic' does not enable different spreading factors while preserving a common scrambling code, nor does he disclose spreading in combination with scrambling. The Examiner respectfully disagrees. Popovic' discloses using channelization codes based on orthogonal variable spreading factor codes (col. 6, lns. 10-40). The spreading code has length L, which has spreading factors that are multiples of the spreading code (col. 12, lns. 33-50). Popovic' does teach using variable spreading factors which are multiples of a common spreading code. The code is common in that it has a fixed length, which is a multiple of the spreading factors. Popovic' also teaches using a channelization code for spreading (spreading code) in combination with another spreading code (scrambling code). The codes from Popovic' have functionality and a multiplicity relationship similar to the claimed invention. Therefore the Examiner believes that the rejection is proper.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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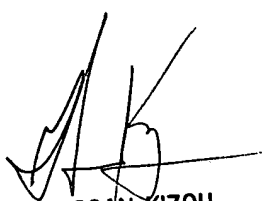
- Gustafsson et al, USP 6,643,275 B1. *Random Access in a Mobile Telecommunications System.*
- Stewart et al, USP 6,009,091. *Method and Apparatus for Mobile Station Location within a Communication system.*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M Swickhamer whose telephone number is (703) 306.4820. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872.9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305.3900.

CMS  
December 22, 2003

  
HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600